ABSTRACT OF THE DISCLOSURE

A receiving section outputs a received signal. An estimation section estimates transmission path characteristics, using the received signal and a modulated data signal. A compensation section outputs a compensated data signal, using the received signal and 5 the transmission path characteristics. A demodulation section demodulates a modulated data signal, using the compensated data signal. A modulation section modulates a modulated data signal, using the demodulated data signal. The estimation section begins the estimation by comparing a result obtained by modulating known-data and a known-data portion of the received signal. The compensation section compensates for a non-10 compensated data signal portion, using the estimated transmission path characteristics.